Claims

1. A helical screw rotor compressor comprising

a rotor housing (103, 104, 105) that includes a first end wall (103) and a second end wall (104), wherein said walls (103, 104) are parallel with one another and connected by a barrel wall (105), wherein said barrel wall has internally the shape of two parallel and mutually intersecting cylinders, and wherein the rotor housing (103, 104, 105) further includes an inlet port (108) at a first end and an outlet port at a second end,

two rotors (101, 102) which co-act with each other and also with the rotor housing (103, 104, 105) and each of which includes a respective shaft (21; 26) mounted in end walls (103, 104) of the compressor housing, and a respective rotor body (22; 23) surrounding a respective shaft (21; 26), said bodies having parallel end surfaces (4, 3) between the end walls (103, 104) of the rotor housing, wherein the rotor body (22, 23) includes mutually separated helical lobes (106, 107) that have a crown (5; 15 respectively), a first or leading flank surface (1) on a first side of the crown (5) and a second or trailing flank surface (2) on a second side of the crown (5), **characterised** in that the second or trailing flanks (2) of said lobes (106, 107) are bevelled or chamfered adjacent the second end surface (3) at said outlet opening.

2. A helical screw rotor compressor according to Claim 1, **characterised** in that the rotor body (22, 23) consists of a polymeric material.

3. A helical screw rotor compressor according to Claim 2, **characterised** in that the rotor body (22, 23) consists of a thermoplastic resin.

4. A helical screw rotor compressor according to Claim 2, **characterised** in that the rotor body (22, 23) consists of a thermosetting resin.

5. A helical screw rotor compressor according to Claim 1, **characterised** in that the bevel or chamfer functions to reduce the width of the lobe (106, 107) at said end surface by at most 3 mm.

6. A helical screw rotor compressor according to Claim 1, **characterised** in that the bevel or chamfer functions to reduce the width of the lobe (106, 107) at said end surface by 0.5 mm at the lowest.

7. A helical screw rotor compressor according to Claim 1, **characterised** in that the bevel or chamfer is perpendicular to the end surface (3, 4).

8. A helical screw rotor compressor according to Claim 1, **characterised** in that the rotor shaft (21, 26) is made of steel.